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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,802	04/20/2004	Erin N. Rosskopf	0022.03	5070

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USDA, ARS, OTT
5601 SUNNYSIDE AVE
RM 4-1159
BELTSVILLE, MD 20705-5131

EXAMINER	
STITZEL, DAVID PAUL	

ART UNIT	PAPER NUMBER
1616	

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/828,802	ROSSKOPF ET AL.	
	Examiner	Art Unit	
	David P. Stitzel, Esq.	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,9-13 and 15* is/are pending in the application.

4a) Of the above claim(s) *3-8,14,16 and 17* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,9-13 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/1/04; 4/12/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

OFFICIAL ACTION

Acknowledgment of Receipt

Receipt of the Applicants' Election, *with traverse*, of: bromoacetic acid as the patentably distinct species of pesticide, as recited in claims 1 and 15; weeds as the patentably distinct species of pest, as recited in claims 2, 9 and 10; and *Cyperus rotundus* as the patentably distinct subspecies of weed, as recited in claim 10; which was filed on April 14, 2006, in response to the Official Action mailed on March 24, 2006, is acknowledged.

Restriction/Election

Applicants' traversal of the aforementioned species and subspecies election requirement on the grounds that said species and subspecies election requirement is improper because said species and subspecies can be simultaneously examined without imposing a serious search burden, is duly noted. More specifically, Applicants' argue that a prior art search and examination of the claims reciting not only the various species of pesticide, namely iodoacetic acid, bromoacetic acid, 2-iodoacetamide, and 2-bromoacetamide; but also the various species and subspecies of pest, namely fungi (*Fusarium*), insects, nematodes (*Meliodogyne*), bacteria, and weeds (*Amaranthus hybridus*; *Echinocloa crus-galli*; and *Cyperus rotundus*), would not impose a serious search burden. However, a proper prima facie case of undue search burden associated with a prior art search and examination of the claims directed to: the separate, independent and patentably distinct species of pesticide; and the separate, independent and patentably distinct species and subspecies of pest, has previously been established in the aforementioned Official Action. For example, a search in the prior art for bromoacetic acid as a pesticide would not simultaneously encompass a prior art search for 2-iodoacetamide as a pesticide, as asserted by the Applicants, since bromoacetic acid and 2-iodoacetamide are patentably distinct species of pesticides possessing completely different IUPAC names and chemical structures. For example, a

search in the prior art for fungi of the species of *Fusarium* as a pest would not simultaneously encompass a prior art search for weeds of the species of *Cyperus rotundus* as a pest, as asserted by the Applicants, since *Fusarium* fungi and *Cyperus rotundus* weeds are patentably distinct species of pests. Because each of the disclosed species of pesticide, as well as species and subspecies of pests, are separate, independent and patentably distinct, each from the other, restriction for examination purposes based on the aforementioned species and subspecies election requirement, is deemed proper and therefore made FINAL.

Status of Claims

Claims 3-8, 14, 16 and 17 are withdrawn from further consideration as being directed to non-elected species and subspecies. As a result, claims 1, 2, 9-13 and 15, which are drawn to the elected species and subspecies, are currently pending and therefore examined herein on the merits for patentability.

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of the appropriate paragraph of 35 U.S.C. § 103, which forms the basis of the obviousness rejections as set forth under this particular section of the Official Action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. § 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 9-13 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 3,975,181 (hereinafter the Watanabe '181 patent) in view of East German Patent Application Publication DD257379A (hereinafter the Bergmann '379 publication).

With respect to claims 1, 2, 9-13 and 15 of the instant application, the Watanabe '181 patent teaches a method of combating undesired vegetation comprising applying a synergistically reduced effective amount of an herbicidal composition to said undesired vegetation and soil, wherein said herbicidal composition comprises a synergistic combination of: a halogenated aliphatic acid phytotoxicity agent, such as monochloroacetic acid; and a translocated chronic phytotoxicity agent; wherein said synergistically reduced effective amount of said monochloroacetic acid is from 1 pound/acre to 2 pounds/acre; wherein said undesired vegetation includes weeds of the family Cyperaceae, and more specifically, species of sedge of the genus *Cyperus* (column 1, lines 5-15 and 38-66; column 2, lines 21-33 and 40-47; column 3, lines 44-68; column 4, lines 1-2).

Although the Watanabe '181 patent teaches utilizing monochloroacetic acid as said halogenated aliphatic acid phytotoxicity agent, the Watanabe '181 patent does not explicitly teach utilizing monobromoacetic acid as said halogenated aliphatic acid phytotoxicity agent, as claimed in claims 1 and 15 of the instant application. Although the Watanabe '181 patent teaches utilizing synergistically reduced effective amounts of said halogenated aliphatic acid phytotoxicity agent, namely from 1 pound/acre to 2 pounds/acre monochloroacetic acid, the Watanabe '181 patent does not explicitly teach utilizing monobromoacetic acid as said halogenated aliphatic acid phytotoxicity agent

in an effective amount from about 40 pounds/acre to about 1200 pounds/acre, as claimed in claim 13 of the instant application. Although the Watanabe '181 patent teaches utilizing monochloroacetic acid as said halogenated aliphatic acid phytotoxicity agent for combating species of sedge of the genus *Cyperus*, the Watanabe '181 patent does not explicitly teach utilizing monobromoacetic acid as said halogenated aliphatic acid phytotoxicity agent for combating nutsedge of the species *Cyperus rotundus*, as claimed in claim 10 of the instant application.

However, the Bergmann '379 publication teaches a method of killing plants and parts thereof comprising applying an herbicidal composition to said plants and parts thereof, wherein said herbicidal composition comprises a combination of: either 3,5-dibromo-4-hydroxy benzonitrile, or 3,5-diiodo-4-hydroxy benzonitrile; and either monochloroacetic acid, or monobromoacetic acid (abstract). It would have been prima facie obvious to one of ordinary skill in the art at the time the instant application was filed to modify the method and herbicidal composition of the Watanabe '181 patent to incorporate monobromoacetic acid in place of monochloroacetic acid as said halogenated aliphatic acid phytotoxicity agent since the Bergmann '379 publication reasonably teaches the interchangeability of monobromoacetic acid and monochloroacetic acid within herbicidal compositions. One of ordinary skill in the art at the time the instant application was filed would have been motivated to substitute monobromoacetic acid in place of monochloroacetic acid, as reasonably suggested by the Bergmann '379 publication, so as to determine whether the phytotoxicity of said herbicidal composition is enhanced.

While neither of the aforementioned references explicitly teach utilizing monobromoacetic acid in an effective amount from about 40 pounds/acre to about 1200 pounds/acre, as claimed in claim 13 of the instant application, the Watanabe '181 patent explicitly teaches that because synergism exists between said halogenated aliphatic acid phytotoxicity agent and said translocated chronic phytotoxicity

agent within said herbicidal composition, synergistically reduced effective amounts of each phytotoxicity agent may be used, which would otherwise be insufficient to exert herbicidal activity in the event that each of said phytotoxicity agents were used alone on an individual basis. Therefore, it would have been prima facie to one of ordinary skill in the art at the time the instant application was filed to increase the amount of a halogenated aliphatic acid phytotoxicity agent, such as the monobromoacetic acid phytotoxicity agent taught in the Bergmann '379 publication, especially if said halogenated aliphatic acid phytotoxicity agent were to be used alone within an herbicidal composition, as opposed to in synergistic combination with another phytotoxicity agent, so as to obtain an efficacious herbicidal effect, as reasonably suggested by the Watanabe '181 patent. Thus, while neither of the aforementioned references explicitly teach the instantly claimed range of effective amounts of monobromoacetic acid, it is well within the purview of the skilled artesian to determine the optimal range of effective amounts of monobromoacetic acid, which is being used as the sole phytotoxicity agent within said herbicidal composition, by systematically adjusting the concentration thereof during the course of routine experimentation. One of ordinary skill in the art at the time the instant application was filed would have been motivated to systematically adjust the effective amounts of monobromoacetic acid, which is the sole phytotoxicity agent within said herbicidal composition, during the course of routine experimentation so as to obtain a desired herbicidal efficacy. "Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." See *In re Aller*, 105 USPQ 233, 235 (CCPA 1955). "The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages." See *Peterson*, 65 USPQ2d 1379, 1382 (Fed. Cir. 2003).

While neither of the aforementioned references explicitly teach utilizing monobromoacetic acid as said halogenated aliphatic acid phytotoxicity agent for combating nutsedge of the species *Cyperus rotundus*, as claimed in claim 10 of the instant application, the Watanabe '181 patent explicitly teaches utilizing monochloroacetic acid as said halogenated aliphatic acid phytotoxicity agent for combating various species of sedge within the genus *Cyperus*. As discussed heretofore, it would have been prima facie obvious to one of ordinary skill in the art at the time the instant application was filed to substitute monobromoacetic acid in place of monochloroacetic acid as the halogenated aliphatic acid phytotoxicity agent taught in the Watanabe '181 patent, especially since the Bergmann '379 publication reasonably teaches the interchangeability of monobromoacetic acid and monochloroacetic acid as phytotoxicity agents within herbicidal compositions. Therefore, since the Watanabe '181 patent explicitly teaches utilizing monochloroacetic acid for combating various species of sedge within the genus *Cyperus*, one of ordinary skill in the art would have been motivated at the time the instant application was filed to utilize monobromoacetic acid as a phytotoxicity agent for combating various species of sedge within the genus *Cyperus*, such as nutsedge of the species *Cyperus rotundus*.

Conclusion

Claims 1, 2, 9-13 and 15 are rejected because the claimed invention would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made since each and every element of the claimed invention, as a whole, would have been reasonably suggested by the teachings of the cited prior art references.

Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to David P. Stitzel, M.S., Esq. whose telephone number is 571-272-8508. The Examiner can normally be reached on Monday-Friday, from 7:30AM-6:00PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Johann Richter, Ph.D., Esq., can be reached at 571-272-0646. The central fax number for the USPTO is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published patent applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished patent applications is only available through Private PAIR. For more information about the PAIR system, please see http://pair-direct.uspto.gov. Should you have questions about acquiring access to the Private PAIR system, please contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David P. Stitzel, M.S., Esq.
Patent Examiner
Technology Center 1600
Group Art Unit 1616
May 2, 2006

Johann Richter, Ph.D., Esq.
Supervisory Patent Examiner
Technology Center 1600
Group Art Unit 1616